CHARACTERISTICS OF BUSINESS RISK MANAGEMENT

doc. Ing. Dušan Čunderlík, CSc.

The term “risk management” is used in the field of statistics, economics, psychology, the social sciences, biology, engineering, toxicology, systems analysis, research operations, etc. What does it mean? For social analysts, politicians and academics it is the management of environmental and nuclear risks which threaten our existence, for bankers and financial employees it is the sophisticated use of techniques, such as currency hedging against loss, for insurance agents it is the coordination of insurable risk and the reduction of insurance costs, for rescuers it is the reduction in the number of accidents and injuries.

Another term linked with the overall activity of a business is perceived in a relatively new way. This is business risk management. Presentations on this topic focus on clarifying the course of risk itself, on providing examples of application and on discussing ways forward in this field. Consultants promote their ability to manage business risks, auditors examine how to incorporate business risk management procedures into business audits, professional journals are starting to publish studies on business risk management and books, too, are beginning to appear on the topic, and several universities now offer courses entitled business risk management.

Risk management today has its roots in a number of unrelated disciplines. Military risk analysis led to the development of operations research. Personal and commercial risks led to the emergence of an insurance and accounting approach to risk management. Strategic analyses of risk and the recognition that the future need not necessarily be in line with the past brought about the birth of so-called scenario planning. Another approach is the use of the options valuation theory for obtaining various alternatives. Currency, interest rate and credit risks have created a banking approach to risk management and hedging via various instruments. Operational and environmental risk management have helped the development of contingency planning methods. All these contributions help us understand risk better.

It is necessary to understand that various results of a specific undertaking are possible on the basis of specific circumstances; this means that nothing is impossible and nothing is absolutely certain. In the real world determining the probability of the influences of various circumstances is often connected with difficulties. By means of a simulation method focused on the future, experts attempt to estimate (to generate) objective probabilities of the occurrence of these influences. If we do not assign any estimates of probabilities to individual circumstances, there arises the extreme case of risk – uncertainty.

Business risk arises, on the one hand, when, while we are not able to foresee the future, we can determine the probability of possible future situations in the business entity’s environment. On the other hand it must hold true that a lack of knowledge as to the future has an impact on achieving objectives.

From our experience we know that managers do not manage risks in a way that they would be an advantage for their companies. Various schools of thought discuss various risks, use various approaches, often however at a very low level. Many companies do not have a summary mechanism for alerting the management to the importance of risk management and revenues from risk. This is all the more serious due to the fact that risk is

Diagram 1 The risk management process
a key strategic feature of a business's development and risk management is a strategic business process (Diagram 1). This is a process where the organisation methodologically evaluates the riskiness of its activities with the aim of achieving profit in the framework of each activity and at the same time in the framework of the portfolio of all activities.

Management should estimate whether business activities of the company are in accordance with its strategic goals set, and how risk management is connected with investing and decisions on growth. The management should have a general overview of risk threats in order to avoid surprises.

This process begins with a flow of inputs from the firm's external environment. Most firms do not have a coherent procedure for monitoring the surrounding environment in which they operate, therefore they are not even aware of the risks they must face. The second step is, with the help of an analysis of the surrounding environment, to examine opportunities and threats. When the opportunities and threats have been ascertained, the management must decide to what extent the risk is bearable and to set targets for risks and revenues.

The management should develop a vision and strategy of risk founded on the risk environment and shareholders' attitude to risk. Different groups of investors usually have different attitudes to risk. A summary risk-management strategy should include a philosophy of risk management and organisational liability.

On the basis of the preceding characteristics it is appropriate to separate risk management out into the following phases:

- risk identification (ascertaining and quantifying the firm's risk potential),
- risk assessment (risk policy based on probability),
- risk elimination (strategy and measures),
- risk control.

### Risk identification

Risk identification forms the basis for the development of risk management and control. In practice however many difficulties arise, risks are often overlooked or even intentionally ignored. Individual risks on their own are less problematic, the difficulties lie in the relations between them, as well as their seriousness in the overall context of the business. From the portfolio theory it ensues that it is the correlation itself between individual business risks that plays the central role in ascertaining the size of a risk. The system of the risk identification procedure is depicted in diagram 2.

The degree and consequences (impact) of a risk are, however, different since the degree of risk is the result of several concordant and opposing flows and factors influencing risk.

Diagram 2 Risk identification procedure – example

---

encountering the desired result. It expresses the difference between the forecast and actual result. In this, it is important to quantify the probability of the occurrence of a risk, its statistical distribution, the probability of the consequences of the risk, as well as a correlation analysis of risk factors.

The links between the degree of a risk and its impact correlate in various ways. Even the same degree of risk can have various effects, and it does not always hold true the imagined slogan: the greater the risk, the greater the profit. From the practical side it is more useful to admit several different co-relationships, since in practice also the opposite relationship applies: even a low degree of risk can have a great impact.

In an analysis and assessment of risk it is, moreover, necessary to count not only on direct consequences, but also on the consequences brought about in the form of a chain reaction. In addition, it is necessary to count on the long-term lasting consequences of a cumulative nature. In principle, four main variant situations can occur:

- A high degree of risk and its consequences, e.g. in emergency situations in continual production equipment,
- A high degree of risk with low consequences. This can be expressed more vividly by comparing the shattering of a signal light on the control panel of a lift and the tearing off of the lift body,
- A low degree of risk with high potential consequences, e.g. the catastrophic consequences of a failure at a nuclear power station,
- A low degree of risk with low consequences.

The rationality of the decision-making entity’s proceedings depends both on its specific qualities (internal rationality), as well as on the need to conduct decision making in accordance with the requirements of the applicable management system (external rationality). It is necessary to differentiate between:

- incorrect decisions in the case of a lack of information, which may be caused by a lack of qualification on the side of managers (e.g. they do not know what they cause by which decision) or their lack of discipline (e.g. they do not bother to check warning signs),
- objective correct decisions founded on forecasts that later show to be incorrect, because the qualified forecasts failed. An objective decision is deemed to be a decision with which most qualified managers would agree, if they had the same information available.

Risk assessment

The aim of risk assessment is to condense available information on risk into a set of standard figures (risk assessment parameters), which define the severity of the risk. For defining the severity of a risk we can use two parameters:

- impact (possible losses that will occur in the case of a certain event),
- probability that the event will occur.

These two parameters often together create a simple measure of the severity of a risk through using a risk matrix.

It is also appropriate to classify risks into:

- critical – in the case of which the potential losses lead to bankruptcy (regardless of cause),
- important – in the case of which the losses do not lead to bankruptcy, but force the firm to borrow capital to overcome them,
- unimportant – in the case of which the losses are not large and the firm can face them on its own strengths.

Risk management

The next step is to select appropriate techniques to eliminate risk. These techniques include: (a) risk avoidance, (b) risk reduction, (c) risk maintenance and (d) risk transfer. It is a priority to decide which technique to use for which risk. The scope of a decision varies in each firm. What is taken into account is the scope of potential losses and their probability, as well as the size of costs connected with the respective option decided upon.

Risk avoidance. Avoiding risk is one of the techniques of risk management, but it is more a negative than positive technique. Where it is used to a large degree, businesses miss many opportunities and may be unable to achieve their objectives as a result.

Risk reduction. Risk may be reduced in two ways. Firstly, through loss prevention and secondly through control. Safety programmes and procedures preventing losses, such as healthcare, fire prevention, night security and alarms are examples of risk management through loss prevention or through reducing the likelihood that a loss will occur. Some techniques are designed so as to avoid the occurrence of the loss, while others are directed more at controlling the extent of possible damage. From a certain aspect damage prevention is the most desirable form of risk management. If the possibility of a loss were to be completely eliminated, the risk too would be eliminated. Even this approach may be considered inappropriate. It does not matter how hard we try, it is impossible to avoid all losses. Moreover, in some cases the prevention of a loss can cost more than the loss itself.

A risk may be reduced also through a combination of a large number of risk units and through forecasting (a justifiable estimate) of future losses for the whole group. It is on this principle that, for example, insurance companies operate.

Risk maintenance. Risk maintenance is perhaps the safest risk management method. Organisations as well
as individuals face an innumerable number of risk factors. In most cases nothing is done about them. If, however, some positive action is not adopted that would reduce, avoid or transfer the risk, the possibility of a loss ensuing from this risk remains.

Risk maintenance can be carried out consciously or unconsciously. We talk of conscious maintenance when we perceive a risk, but do not reduce or transfer it. If we do not know of the risk, this is unconscious risk maintenance.

Risk maintenance may also be voluntary or involuntary. In the case of voluntary maintenance we realise that the risk exists and with silent consent accept losses arisen (usually because no other more promising alternative exists). The involuntary maintenance of risk is where we do not realise that a risk exists and also in the case where it is not possible to transfer, avoid, or reduce it.

Each organisation must decide which risks to leave and which to avoid, or transfer on the basis of the ability to bear the potential losses. A loss which may for one organisation be a financial catastrophe, may for another be easily bearable. Generally it holds true that risks left in an organisation should lead to relatively small losses.

Transfer of risk is used for managing speculative as well as net risk. An excellent example of managing speculative risk is the process of reinsurances. Net risk is often transferred into contracts, in which one party estimates the possibility of damage caused to the other party, e.g. a tenant can agree that under certain conditions he/she will pay the landlord for damage arisen through using the property. The contractual transfer of risk is common in the building industry, but also among producers and sellers, where the liability for the product is specified.

Risk distribution. This is a special case of transferring risk and a form of risk maintenance. If the risk is distributed, the possibility of loss is transferred from the individual to the group. It is necessary however to realise that a risk transferred by an individual to a group is linked to the risk which other members bring to the group. Risk may be distributed among individuals and organisations in various ways. An example are joint-stock companies where a large number of investors exists and in the case of the company becoming bankrupt each of them bears a relatively small part of the risk of loss. Another example are insurance companies, where the distribution of risk among members of the group is their fundamental characteristic.

Evaluating and testing a decision

Evaluation and testing are necessary for two reasons:
1. The process of risk management does not operate in a vacuum. The external and internal environment of a firm changes, new risks arise, old risks lapse. For this reason some techniques which were appropriate in the past year need not necessarily be appropriate this year and maybe not at all in the near or distant future.
2. Sometimes even a mistake occurs. The evaluation and testing of risk management allows a manager to test decisions and discover mistakes in the hope that this will not be expensive. Even where evaluation and testing should be an internal matter, it is appropriate to invite independent (external) consultants. This applies particularly in the case of small firms that do not have the respective specialists.

Risk control

In theory risk control represents the last step in the risk management process, in practice however it is often the first step. Risk control requires the identification of the causes why the operating results differ from the plan, as well as a decision on appropriate measures for removing deviations. It is only clear that in conducting business activities the impact of any potential losses must be limited so as to minimise their effects on the firm’s expected results.

Since risk management is based on decisions adopted in conditions of uncertainty, appropriate fulfilment of objectives is not quantified only on the basis of whether the given firm survived, but whether it would have been able to survive even under less favourable conditions. The existence of an inappropriately directed future development of a business with a catastrophic scenario constitutes a deviation from the objective. It is this type of deviation that the process of risk control management deals with.

Risk management audit

Although the evaluation and testing of a risk management programme is a continual process, this programme must be regularly submitted for analysis, which is termed risk audit. Most people connect the term “audit” with accounting, where it concerns the formal control of financial records by public experts in order to verify the accuracy, entirety and correctness of accounting records. Another meaning of this term is connected with the complete verification and evaluation of problems covered by the expression “risk management audit programme”. This type of audit is a detailed and systematic examination of a compiled programme, focused on testing the suitability of the programme’s objectives from the aspect of the respective firm, as well as whether the criteria created for achieving the programme objectives are appropriate and have been correctly implemented.